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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,894	01/07/2004	Craig D. Tipton	3255R	4557

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THE LUBRIZOL CORPORATION  
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EXAMINER
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GOLOBOY, JAMES C

ART UNIT	PAPER NUMBER
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1797

MAIL DATE	DELIVERY MODE
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12/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/752,894	<b>Applicant(s)</b> TIPTON ET AL.	
	<b>Examiner</b> James Goloboy	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,6-18,21,22,24,26,27 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 6-18, 21-22, 24, 26-27, 29-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/19/07 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. Claims 1, 3-4, 6-10, 12-18, 21-22, 24, 26-27, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotten in view of Suyama and Tomaro (WO 02/16533).

In column 13 lines 39 through column 14 lines 20, Hotten discloses compositions comprising an oil of lubricating viscosity as in component (d) of claim 1, a succinimide dispersant as in component (c) of claim 1, 0.05% by weight of terephthalic acid as component (a) of claim 1 as well as claims 3-4, and a zinc dihydrocarbyl dithiophosphate, as well as other additives.

Hotten further teaches, in column 10 lines 68, that a detergent may be added to the lubricant compositions, as in claim 15. The compositions of Hotten also contain a succinimide dispersant, as in claim 10. In column 11 lines 3-18 Hotten teaches an amount of oil sufficient to provide a concentrate, as in claim 13, and the examples of

columns 13-14 are fully formulated lubricants, meeting the limitations of claims 13-14.

Hotten additionally teaches that the lubricant compositions can be used in transmission fluids, meeting the limitations of claims 26-27.

The differences between Hotten and the currently presented claims are:

i) Hotten does not disclose a composition comprising an aliphatic phosphorus acid other than a zinc dialkyldithiophosphate, as recited in component (b)(ii) of claim 1, and more specifically a dialkyl hydrogen phosphite, as recited in claim 7.

ii) Hotten discloses in column 10 lines 62-68 that the composition can further comprise additional additives, but does not disclose a friction modifier. This relates to claim 16.

iii) Hotten does not disclose a composition where the inorganic phosphorus acid of component (b)(i) of claim 1 is phosphoric or phosphorous acid, as recited in claim 6. Hotten does disclose in column 13 lines 44-45 that the lubricant composition may comprise 0.4% by weight of a rust inhibitor.

With respect to i), Tomaro, on page 2 lines 20-26, discloses a manual transmission lubricant comprising a metal thiophosphate, phosphite, and a basic metal salt which can be a detergent. The composition provides antiwear and extreme pressure protection. From page 5 line 26 through page 6 line 3, Tomaro discloses that zinc dithiophosphate, as in the composition of Hotten, is an especially useful thiophosphate. On page 15 lines 18-20, Tomaro discloses that dialkyl hydrogen phosphites, as in claim 7, and specifically dibutyl hydrogen phosphite as in claim 8, as

particularly useful phosphites. On pages 52-53 (examples 1-3), Tomaro discloses that the composition can comprise 0.5% by weight of the phosphite.

With respect to ii), Tomaro discloses on page 46 lines 15-18 that the compositions can also include a friction modifier, which can be a borate ester as recited in claim 16.

With respect to iii), Suyama, in column 12 lines 42-43, teaches that phosphoric acid salts are suitable rust inhibitors for use in lubricant compositions. The use of 0.4% by weight of these phosphoric acid salts as the rust inhibitor in the lubricant composition of Hotten meets the limitations of Claims 1 and 6, for the case where the rust inhibitor is the salt of an inorganic phosphorus acid of component (b)(i) of claim 1.

The total concentration of phosphoric acid salt and phosphite ester in the composition of Hotten, Tomaro, and Suyama will therefore be 0.9% by weight, meeting the limitations of claims 9 and 12.

The use of the additive mixture of Tomaro, including phosphites, and the rust inhibitor of Suyama in the composition of Hotten therefore meets the limitations of claims 1, 3-4, 6-10, 12-16, and 26-27. While claim 1 and its dependent claims have been placed in product-by-process form, applicant has not provided evidence commensurate in scope with the claims showing that compositions made by the claimed process differ from the compositions formed from the simple combination of the ingredients of Hotten, Tomaro, and Suyama. Further discussion of this issue appears in the Response to Arguments section below.

Furthermore, case law holds that the selection of any order of mixing ingredients is *prima facie* obvious. *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). As noted in the paragraph above, this *prima facie* obviousness has not been sufficiently rebutted. Therefore, the methods of claims 17, 21-22, and 24 are obvious in light of Hotten, Tomaro, and Suyama. It is further noted that Tomaro discloses on page 52 lines 5-9 that the components are blended at a temperature from room temperature to 100° C, overlapping the ranges recited in claims 29-31, and also disclosing the concept of heating the components, as in claims 18.

It would have been obvious to one of ordinary skill in the art to use the additive mixture of Tomaro in the composition of Hotten, as Tomaro teaches that the combination of zinc dithiophosphate and dialkyl hydrogen phosphite is useful when the composition is used as a manual transmission lubricant. It would have been obvious to one of ordinary skill in the art to use the phosphoric acid salt rust inhibitors of Suyama in the composition of Hotten in order to suppress the formation of rust on the surface of metallic parts, as taught in column 10 lines 54-58 of Hotten.

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotten in view of Tomaro as applied to claims 1, 3-4, 6-10, 12-18, 21-22, 24, 26-27, and 29-31 above, and further in view of Papay.

The discussion of Hotten and Tomaro in paragraph 2 above is incorporated here by reference. Hotten and Tomaro disclose the use of dispersants, but not disclose the concentration range of claim 11.

Papay, in the table of column 50 lines 10-15, discloses a particularly preferred concentration of 1-8% by weight for a dispersant ("component b") in a lubricating composition, encompassing the range recited in claim 11.

It would have been obvious to one of ordinary skill in the art to use the dispersant of Hotten and Tomaro in the concentrations of Papay, as Papay discloses that those are particularly preferred concentrations for such additives in lubricating compositions.

### ***Response to Arguments***

4. Applicant has submitted a declaration signed by Waters and dated 8/23/07, allegedly demonstrating that compositions formed by premixing the terephthalic acid with the aliphatic phosphorus ester are different than those formed without a premixing step. While the compositions formed by a method incorporating a premixing step do appear to differ from compositions formed without a premixing step in the examples provided in the declaration, these examples are not commensurate with the scope of the claims, and therefore it cannot be concluded that compositions prepared with a premixing step differ from those prepared without a premixing step across the full scope of the claims.

In particular, the concentration of terephthalic acid ranges from about 0.001 to 0.05% by weight, the only aliphatic phosphorus ester present in the claims is dibutyl hydrogen phosphite, and the only inorganic phosphorus acid or salt thereof is 85% phosphoric acid. While some of these limitations are incorporated into dependent claims, no claim contains all of the above limitations, and therefore the evidence

provided by applicant is not commensurate in scope with any of the claims, nor is it commensurate with the scope of the prior art. The composition of Hotten, Tomaro, and Suyama uses phosphoric acid salts as component (b)(i) of claim 1, so it is not apparent how results obtained using 85% phosphoric acid demonstrate that products formed by the process of claim 1 differ from those formed by combining the ingredients of Hotten, Tomaro, and Suyama.

Also, it appears that the difference arising from a premixing step appears to decrease as the concentration of terephthalic acid increases. In the compositions comprising 0.05% by weight of terephthalic acid (formulations 93 and 131), the compositions appear to exhibit equal stability under 3 of the 6 conditions reported. In light of this data, it is not clear that any difference would exist at a terephthalic acid concentration of 0.1%, the upper bound of the range recited in claim 1, and at the unbounded concentration of claim 17. It is also noted that all the sample compositions comprise 6% by weight of a succinimide dispersant, outside the range of claim 11.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is 571-272-2476. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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